

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: October 16, 2019

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT

Matt Urban
Sarah Large
Ron Crickard
Andrew O'Sullivan
Tim Boodey
Russ St. Pierre
Trent Zanes
Tony King
Matt Healey
Arin Mills
John Sargent
Meli Dube
Jason Trembley
Kevin Daigle

ACOE

Mike Hicks
Rick Kristoff

EPA

Mark Kern
Jeannie Brochi
Beth Alafat

NOAA

Mike Johnson*

NHDES

Lori Sommer
Joe Schmidl
Stephanie Giallongo

NH NHB

Amy Lamb

Consultants/Public

Participants

Christine Perron
Josh Lund
Chris Fournier
Amanda Hollenbeck
Tucker Gordon

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH: *(minutes on subsequent pages)*

Postponed finalizing the August 21, 2019 Meeting Minutes	2
Dublin, #42829 (Br. 176/072)	2
Columbia, #42827 (Br. 233/128)	2
New Hampton, #41896.....	2
Lee, #41322 (X-A004(593)).....	3
Center Harbor- New Hampton, #24579 (X-A002(923)).....	5
Loudon-Canterbury, #29613A (A004(458))	6

(When viewing these minutes online, click on a project to zoom to the minutes for that projec

NOTES ON CONFERENCE:

Postponed finalizing the August 21, 2019 Meeting Minutes

Dublin, #42829 (Br. 176/072)

No minutes submitted to date.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Columbia, #42827 (Br. 233/128)

No minutes submitted to date.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

New Hampton, #41896

Russ St.Pierre presented a state-funded, District 3 project to replace the culvert carrying Magoon Brook under NH Route 132 in New Hampton, NH. The culvert is in deteriorating condition. The existing culvert consists of twin 36" concrete pipes, approximately 42' long oriented perpendicular to the road in an east-west direction. It is proposed to be replaced by a box culvert 5' high x 10' wide and 40' long, imbedded one foot with natural stream bed simulation. The new culvert will also be skewed slightly to the northwest to better align with the stream.

There was a question on the presence of species of concern. US Fish and Wildlife IPaC identified only the northern long-eared bat for this location. The NH NHB reported no records of sensitive species near the project area. The DES Wetlands Permit Planning Tool identified Magoon Brook as a wild eastern brook trout stream. Joe Schmidl, NH DES, noted there would likely be a time of year restriction during construction in the conditions of the permit. Bill Rollins noted that the project was scheduled for completion within the next 2-3 years and it had not been decided if it would be done by Department personnel or a contractor.

Lori Sommer, NH DES, asked about mitigation for the project. The Department suggested the project be considered self-mitigating as it proposed to improve the hydraulic capacity of the crossing and improve geomorphic compatibility, skewed to improve the natural alignment, and that the length would be shortened by 2 feet. Lori asked the Department to consider constructing a shelf within the proposed structure to improve wildlife passage. Joe indicated that a low flow channel along river right would make sense with the natural dynamics of the stream since it appears to build up sediment on river left. The Department agreed it would consider the request. *

**Subsequent to the meeting, District 3 revised the plan to lower the proposed culvert, as well as to construct a low flow channel through the crossing along river right that will pass the Q2 storm volume allowing river left to serve as a dry wildlife shelf during annual flow conditions in order to improve wildlife passage.*

This project has not been previously discussed at the Monthly Natural Resource Agency Coordination Meeting.

Lee, #41322 (X-A004(593))

Christine Perron introduced the project. This is a bridge replacement project on NH Route 125 over the Little River. The project is just north of the Lee Speedway, and the river outlets into the Lamprey River approximately 2 miles to the east. The project is in the early stages of resource identification and alternatives analysis. The tentative advertising date is January 2022.

The drainage area at the bridge is 18.4 square miles, making this a Tier 3 stream crossing. The average measured bankfull width is 32 feet. The existing structure is a 18' wide x 12' high corrugated metal pipe (CMP). Photos and aerial imagery of the structure and the Little River were reviewed to highlight existing conditions, including the skew of the upstream section of river to the pipe and the scoured condition of the outlet. Resources identified to date include a Zone A 100-year floodplain and floodplain wetlands adjacent to a Tier 3 crossing (Priority Resource Areas identified by the NHDES Wetland Permit Planning Tool). The Little River is part of the Lamprey River watershed Designated River system. A rare plant survey will need to be completed for tufted loosestrife, which is known to occur nearby, and small whorled pogonia, which could occur in this county. There are known records of American eel and Blanding's turtle in the vicinity of the project. NH Fish & Game has recommended a time of year restriction for in water work; however, it's too early to know if this would present a concern for the construction schedule.

The existing culvert was installed in the 1970s and replaced a steel through girder bridge with a concrete deck, which was constructed in 1937. The as-built plan for the 1937 bridge was reviewed to highlight the alignment of the river at that time, which passed under the bridge at a skew. When the culvert was installed, it was placed perpendicular to the roadway in the middle of the bridge abutments, which changed the alignment of the river. The project proposes to replace the existing culvert with a single span bridge structure. As part of the alternatives analysis, consideration is being given to realigning the river through the bridge area to better match the pre-culvert crossing condition, with various river alignments and bridge skews under consideration. It is anticipated that the river will be aligned at a skew to the road, and the bridge span will be long enough to accommodate the river skew while maintaining a maximum substructure skew of 20 degrees.

Josh Lund reviewed the conceptual design alternatives currently under review and C. Perron provided an overview of linear feet of impact. A delineation has not yet been completed, so impacts are still very conceptual.

Alternative 1 consists of an 80' span that maintains the downstream channel alignment and shifts the upstream channel alignment to match the former alignment. This alternative would result in roughly 110 linear feet of permanent bank and channel impacts and 125 linear feet of new channel construction.

Alternative 2 consists of a 90' span that maintains the upstream channel alignment and shifts the downstream channel alignment to match the former alignment. This alternative would result in roughly 30 linear feet of permanent bank and channel impacts and 155 linear feet of new channel construction.

Alternative 3 consists of a 120' span that realigns the upstream and downstream channel to its former alignment. This alternative would result in roughly 200 linear feet of permanent bank and channel impacts and 145 linear feet of new channel construction.

Alternative 3b/2b could be considered for either Alternative 2 or Alternative 3 and consists of filling the existing downstream scour hole and constructing a new stream bank in the southeast quadrant. This optional additional work would result in additional 125 linear feet of bank and channel impact.

The purpose of reviewing the project at this early stage is to get input from the resource agencies on key issues of concern to consider in the alternatives analysis, and especially concerns that would potentially eliminate certain alternatives from consideration.

Mike Hicks suggested that a site walk would be helpful. The project team agreed to schedule this as the project moved forward.

Beth Alafat noted that fluvial geomorphology needs to be considered to help determine an equilibrium point for the stream channel. Stephanie Giallongo stated that the entrenchment ratio would be an important consideration. C. Perron said that a stream assessment was planned for the project and would collect the information needed to consider geomorphic compatibility. S. Giallongo added that if a certain alternative is determined to be a better geomorphic fit but would result in higher impacts, it should still be considered a viable alternative. Meli Dube asked if the proposed project could be considered self-mitigating under the NHDES rules. Lori Sommer replied that DES would look at factors such as the new channel that is created, meeting the stream crossing rules, natural streambed material for aquatic organism passage, and wildlife passage through the structure. She also noted that post-construction monitoring would be required if the project was considered self-mitigating.

M. Hicks suggested that a matrix be provided to summarize the alternatives as the project progresses.

Matt Urban asked if DES would consider the project to be restoration. L. Sommer didn't think so since that classification requires funding specifically used for that purpose.

Joe Schmidl asked if the goal is to design an alternative that would not require approval as an alternative design. C. Perron replied that it would be a consideration but that would not necessarily be a determining factor in the alternatives analysis.

S. Giallongo asked if the project team has a preferred alternative at this time. John Sargent said that so far nothing is jumping out as preferred or not preferred. M. Hicks asked if cost would knock out any alternatives. J. Sargent replied that, at this time, no substantial differences in cost have been identified. C. Perron noted that as impacts are refined, one important factor to be considered will be impacts outside the existing ROW.

The downstream fill option was discussed. There was no consensus on retaining the existing scoured channel at the outlet or filling it in, with comments ranging from potential restorative benefits to doing more harm than good. It was agreed that more information is needed on geomorphic characteristics of the river system before more input can be provided.

B. Alafat noted that the current alternatives analysis includes a great range of alternatives and EPA was happy to see that.

M. Urban noted that the new wetland rules would require consideration of biostabilization methods for the stream banks.

C. Perron noted that the next steps for the project included a Public Informational Meeting, seeking input from the Local River Advisory Committee, wetland delineation and stream assessment, and refining impacts to wetlands, the Little River, ROW, and floodplain. The project would be discussed at a future meeting once this additional information is available.

This project has not been previously discussed at the Monthly Natural Resource Agency Coordination Meeting.

Center Harbor- New Hampton, #24579 (X-A002(923))

Christopher Fournier introduced the project. This is the second time this project has been presented at the Natural Resource Agency meeting. The goal of the project is to rehabilitate the Red List bridge (Br. No. 080/040) carrying Waukewan Road over Lake Waukewan Inlet between the Town of Center Harbor and the Town of New Hampton.

C. Fournier gave an overview of the project and highlighted updates since the last time it was presented. C. Fournier noted that Lake Waukewan is dam controlled and the inlet is in a backwatered condition. C. Fournier mentioned that, as previously discussed, the bridge is not subject to stream crossing guidelines as the resource is considered a delineated wetland.

C. Fournier presented the proposed wetland impacts and noted that Prime Wetlands exist on the Center Harbor side of the project, and they are anticipated in the immediate future on the New Hampton side. C. Fournier indicated that, as previously discussed, wetlands mitigation is anticipated in the form of native plantings for Prime Wetlands Buffer impacts and an Aquatic Resource Mitigation Fund contribution for the direct permanent Prime Wetland impacts.

C. Fournier noted that Shoreland permitting is also anticipated as part of this project in the form a Shoreland Permit-by-Notification.

C. Fournier mentioned that northern long-eared bat and small whorled pogonia field surveys had been completed by Meli Dube and had found no evidence of either species. M. Dube also looked for evidence of invasive species while on-site and noted none.

C. Fournier noted that the United States Coast Guard Bridge Project Questionnaire had been submitted and no concerns were anticipated.

C. Fournier gave a brief overview of the current project schedule, noting that NH Department of Environmental Services Wetlands Bureau permit submission is anticipated in February 2020. Michael Hicks asked for confirmation that there were no historical concerns regarding the bridge. C. Fournier confirmed that there are no historical concerns with this project, as the NH Division of Historical Resources has concurred that the bridge is not eligible for listing on the National Register of Historic Places.

Lori Sommer asked if a shutdown and detour was proposed for the construction of the bridge. C. Fournier confirmed that a temporary closure and detour was preferred by the towns.

Matt Urban asked why mitigation was needed for wetland impacts since the permanent impacts were so small. L. Sommer noted that the size of impacts to the Prime Wetland Buffer made the project require mitigation for all impacts.

It was asked if work could be performed in low-flow conditions and if dewatering would be required as part of the project. C. Fournier responded that the lake and inlet are dam controlled and water levels are consistent. Proper coffer damming, turbidity, and erosion and sediment controls will be used during construction.

Amy Lamb asked if the determination that there would be no impacts to the Common Loon would still be valid in 2021 when the project. Tucker Gordon responded that John Cooley, Loon Preservation Committee, indicated that the nesting sites in the area of the project had not been used in several years. T. Gordon said

that he would confirm that J. Cooley was aware of the project schedule and could confirm his determination if needed.

L. Sommer clarified that Section 700 rules (Prime Wetlands) were what triggered the need for mitigation. No further questions or concerns were raised with the project as presented.

This project was previously discussed at a Monthly Natural Resource Agency Coordination Meeting on April 19, 2017.

Loudon-Canterbury, #29613A (A004(458))

Ron Crickard started the presentation by explaining that this project has been presented to the Natural Resource Agencies prior to today and that this was to update the agencies as to the wetland impacts as we approach advertising.

Trent Zanes briefly described the premise of this project: widening from two 12' lanes with 12' shoulders to 12' lanes with a 12' center turn lane and 12' shoulders. This project is the second phase of the project finalizing construction this year.

Anthony King described the wetland impacts as being mostly Palustrine (forested, scrub/shrub, and some marsh) with a few riverine (only one permanent stream (Gues Meadow Brook). Gues Meadow Brook has 238 sf of temporary impacts and the bank adjacent to the brook has 57 sf of temporary impacts (bank impacts erroneously described as permanent during meeting, all impacts related to Gues Meadow Brook are temporary).

The roadway runoff first flush (Water Quality Volume) between the intersection with Hollow Root Road and the VFW building will be treated in a BMP pond adjacent to the VFW parcel (no wetlands impacted with this BMP). The higher order storms (Q2, Q10, and Q50) will bypass some runoff around the BMP with a flow splitter structure. There is a bypass pipe system that catches and transports some offsite runoff around the BMP. The BMP pond and bypass flows combine and outlet to Gues Meadow Brook via a stone lined swale south of the VFW parcel. Mark Kern (EPA) asked about wetlands in the BMP area. This is an upland/hill area with no wetlands.

At Soucook Lane there is a proposed BMP adjacent to the roadway between Soucook Lane and the drive for Fillmore Industries. This BMP treats runoff from north of the Beanstock store to Soucook Lane. The BMP outlets adjacent to an existing wetland with very little distance between the BMP outlet and the wetland due to topography limitations. Amy Lamb asked about locating this BMP in an adjacent cleared site. The BMP treats runoff from the inside of a roadway curve and the location chosen appears to be the best compromise between ROW costs and other wetland impacts.

Lori Sommer asked about the project mitigation. Ron Crickard explained that this project has a separate permit with separate mitigation.

The total impacts to wetlands are as follows:

Loudon:	16,879 sf permanent
	7,515 sf temporary
Canterbury:	7,527 sf permanent
	3,435 sf temporary

Totals: 35,356 sf total impact
 24,406 total permanent
 10,950 sf temporary

*This project has been previously discussed at the 6/20/2018, 9/19/2018, 12/20/2018, 1/18/2017, 8/17/2016
Monthly Natural Resource Agency Coordination Meetings.*